#2

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant(s): RIORDAN, John F.

Application No.: Group:

Filed: October 15, 2001 Examiner:

For: A COMMUNICATIONS SERVICES CONTROLLER

L E T T E R

October 15, 2001
1817-0115P

Assistant Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

Sir:

Under the provisions of 35 USC 119 and 37 CFR 1.55(a), the applicant hereby claims the right of priority based on the following application(s):

Country	Application No.	Filed
Republic of Ireland	2001/0360	04/12/01

A certified copy of the above-noted application(s) is(are) attached hereto. Also enclosed are the verified English translation(s) of the above-noted priority application(s).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. 1.16 or under 37 C.F.R. 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By: _____
JAMES M. SLATTERY
Reg. No. 28,380
P. O. Box 747
Falls Church, Virginia 22040-074

Attachment
(703) 205-8000
/kw

RIORDAN, John Fitzgerald
Oct. 15, 2001
BSKB, LLP
(703) 205-8000
1817-0115P
1 of 1

Patents Office
Government Buildings
Hebron Road
Kilkenny

I HEREBY CERTIFY that annexed hereto is a true copy of documents filed in connection with the following patent application:

Application No.	2001/0360
Date of Filing	12 April 2001
Applicant	ECET INTERNATIONAL LIMITED, an Irish Company of Park Village, Park Road, Killarney, County Kerry, Ireland.

Dated this 13 day of June 2001.

pp An officer authorised by the
Controller of Patents, Designs and Trademarks.

010360

FORM NO. 1

REQUEST FOR THE GRANT OF A PATENT

PATENTS ACT 1992

The Applicant(s) named herein herby request(s)
[X] the grant of a patent under Part II of the Act
[ ] the grant of a short-term patent under Part III of the Act
on the basis of the information furnished hereunder.

1. Applicant(s)

ECET INTERNATIONAL LIMITED
Park Village
Park Road
Killarney
County Kerry
Ireland
an Irish Company

2. Title of Invention
A communications services controller

3. Declaration of Priority on basis of previously filed application(s) for same invention (Sections 25 & 26)

Previous Filing Date	Country in or for which filed	Filing No.

4. Identification of Inventor(s)

Name(s) and addresse(s) of person(s) believed by the Applicant(s) to be the inventor(s)

To Follow

5. Statement of right to be granted a patent (Section 17(2) (b))

To Follow

6. Items accompanying this Request

(i)	[X]	prescribed filing fee (IRP 100)
(ii)	[X]	specification containing a description and claims
	[ ]	specification containing a description only
	[X]	Drawings referred to in description or claims
(iii)	[ ]	An abstract
(iv)	[ ]	Copy of previous application(s) whose priority is claimed
(v)	[ ]	Translation of previous application whose priority is claimed
(vi)	[ ]	Authorisation of Agent (this may be given at 8 below if this Request is signed by the Applicant(s))

7. Divisional Application(s)
The following information is applicable to the present application which is made under Section 24 -

Earlier Application No:
Filing Date:

8. Agent

The following is authorised to act as agent in all proceedings connected with the obtaining of a patent to which this request relates and in relation to any patent granted -

Name & Address

Cruickshank & Co. at their address recorded for the time being in the register of Patent Agents is hereby appointed Agents and address for service, presently 1 Holles Street, Dublin 2.

9. Address for service (if different from that at 8)

Signed Cruickshank & Co.

By:- Executive.

Agents for the Applicant

Date 12/ 4/2001

"A Communications Services Controller"

Introduction

The present invention relates to a communications services controller for a communications network comprising a plurality of communications systems connected to a network resource; a plurality of user devices connected to the services controller, the user devices having a capability to use at least one of the communications systems; a plurality of contact devices connected to the network resource and having a capability to use at least one of the communications systems, some of the contact devices being additionally user devices.

Throughout the world, there is a continuing growth of small to medium size enterprises and an even greater growth in the proportion of such SMEs using internet provider services as part of their day to day working. Broadband or internet provider cable modem delivered services are enabling SMEs to become more competitive and to be able to depend on internet provider services as part of their business critical activities. There is a similar need in the larger organisation. The number, complexity and indeed usefulness of these services is also increasing. This becomes a considerable problem for the user. As the user is given more and more communications devices, the user needs to know how to launch the device, operate it and then translate who he or she is calling into a format that is understood and accepted by the device that the person being called is using. The complexity is increasing all the time, not alone by virtue of the number of devices but also by their inherent complexity. This is having two serious effects. Firstly, for the individual user, it is becoming increasingly difficult to use such devices and then for the corporate user, it is becoming more and more complex and difficult to control the usage of such devices within their organisation. As the types of communications become more complex, they also become more expensive and further, as the number of services available from ISPs become more complex and useful, employees of large organisations are increasingly using them. Unfortunately, the usage of such devices and services can lead to an exceedingly large cost for the organisation. Thus, the organisation wishes to control and manage the usage, not alone of the communications devices per se or the communications systems, but also

of services provided by such communications systems. Additionally, it desires that its employees will use such communications systems as efficiently as possible.

It has been appreciated that there is a need to focus on providing products and services that are enabled by broadband connectivity which is becoming available in the small and medium enterprise market. Essentially, it is suggested by experts that over the next five years, the major areas in which rapid applications growth will occur, are in the communications applications and services, business systems particularly in the SME market and internet access services facilitated by IP (Internet Phone) broadband technology. It is also predicted that these technologies are converging at an increasingly rapid rate, although what is required and it is appreciated by many, is a customer needs centric service that takes advantage of this convergence. Further, factors increasing the need for such a service is that teleworking is growing across Europe and in many other countries. Research shows that up to 60 million SMEs in Europe are underserved by internet providers. A further major problem for the telecoms market is that there has been a dramatic change across it in which there is increasing levelling of the various service offerings such as bandwidth, access, ecommerce, email support, and so on. There has been an enormous price competition between the telecoms providers and further, more disturbing for the telecoms providers, a considerable lack of brand awareness on the part of the users. These communications services providers recognise the need to differentiate themselves from the marketplace by adding value solutions which enable the end user to identify with the brand that is providing the solution and build brand loyalty. The end user should derive cost savings through the use of these systems with reduced costs of use, increases in productivity due to the use of real time collaboration tools in the working environment and also to have available to them, the services that will make their operations more efficient.

As remarked above, a major problem is the number of disparate technologies, the need to be able to communicate with any contact from a multitude of access or user devices including, for example, mobile phones, the PC, phone and a PDA, and so on. There is a considerable need for the user to communicate with and manage their normal communications more efficiently, effective and simply, than is possible at the present moment. Again, for the business organisation, as mentioned above, there is

a need to increase productivity, enhance the business process, and improve generally the productivity of their workforce. Everybody is aware that improved communications are one of the major ways in which companies can operate more efficiently. As well as improved communications, there is also the need to ensure that those communications are operated and used in the most efficient way possible.

Statements of Invention

THESE WILL BE INSERTED WHEN THE CLAIMS ARE APPROVED.

Detailed Description of the Invention

The invention will be more clearly understood from the following description of an embodiment thereof, given by way of example only, with reference to the accompanying drawings, in which:-

Fig. 1 is a diagrammatic view of a communications system incorporating a communications services controller according to the present invention,

Fig. 2 is a diagrammatic view of the controller according to the invention,

Fig. 3 is a visual representation of the controller with its interaction with a client,

Fig. 4 is another representation of the functional aspects of the server according to the invention, and

Figs. 5 and 6 are simplified flowcharts of one way of carrying out the invention.

Referring to the drawings, there is illustrated a communications network, indicated generally by the reference numeral 1, incorporating a network resource 2 to which is connected a communications services controller 3 which in turn has connected to it,

not necessarily directly as shown but possibly through the network resource 2, a plurality of client/user devices 4, all of which are identified by the same reference numeral but could be different devices such as PCs , mobile phones and the like.

The network resource has connected to it various communications systems, e.g. simple voice telephony, video signalling and also attached to the network resource 2 are contact devices 5 such as PCs, mobile phones, etc., or indeed ordinary phones. Also included in the communications systems network would be various communications such as conferencing services 6, a message server 7 and generally various ISPs, identified by the reference numeral 8. Indeed, communications system in this specification covers not only any system of communication by landline or wireless but also any service provided by electric signal by such landline or wireless connection. Strictly speaking, the term communications system could be argued to cover, in many circumstances, more than one system, for example, a particular service, e.g. downloading a program is deemed to be a system but is more correctly a service which the transmission of it to a user's PC is carried out by a communications system.

Referring to Fig. 2, the essential functional parts of the communications services controller 3 are laid out in one format. Firstly, it comprises a database, indicated generally by the reference numeral 10, containing a user directory 11 and a contacts directory 12. They will almost certainly, in most case, be the one directory and in fact the user directory 12 will practically be combined into the contacts directory 11. For ease of understand of the invention, it is advantageous to separate them into different units. A roles and privileges logic controller 15 is provided and comprises means for controlling access to any desired communications system on a user requesting to use the communications system. The roles and privileges logic controller has a memory 16, including a unique identifier for each communications system available to the contact device for use in the managed network resource. An intercommunications server 17 is provided which effectively forms an interface between all the various communications systems whether they be, for example, a conferencing system, an ISP, or simply a voice telephone. The communications server 17 has means to obtain the necessary access data for the user device from the user directory, for the contact device from the contacts directory, together with having means to allow it

make the necessary contacts and establish communications.

Fig. 3 shows a different layout as a visual representation of the invention in a slightly different way. However, it is essentially the same thing in that the system is shown as a combination of communications services controller 3 and client user devices 4 fed by the system or connected through the communications system and the managed network resource 2, to parts of the system in a slightly different way which, in this embodiment, are identified as a contacts directory 20, business efficiency tools 21, communications applications or systems 22 and a unified messaging application 23, all shown connected to the client user device 4 but, strictly speaking, connected to what is the client communications devices 4 and the communications services controller 3, combined together. It then shows the communications services controller 3 connected to a directory system 24, meeting servers 25, messaging servers 26 and a VoIP-2-PSTN gateway 27. Essentially, as shown, the server 3 and client communications devices 4 are combined together by the system. This merely shows the visual representation of the technical interaction of the various portions of the system according the invention.

Referring to Fig. 4, there is shown a conceptual overview in diagrammatic form of the system showing client technology applications, indicated generally by the reference numeral 30, comprising user interfaces 31 for the user communications devices and a communications services controller, indicated generally by the reference numeral 40, which comprises a platform 41 for communication with the server interface 32 which could, for example, be NT, Solaris, Linux, UNIX, or indeed any other platform that may be devised. This in turn is connected through what is effectively a business logic layer 42 and that is connected to a directory service 43, a conferencing system for video, voice and applications sharing 44, an instant messenger service 45, a unified messaging service 46, an IP-2-PSTN 47, a scheduling service 48 and an auditing service 49 connected to a billing system 50. Then, the business layer 34 is connected to various other services 51, platforms 52 and other applications 53. This simply shows the system in a conceptual way. It will be appreciated that both Figs. 3 and 4 simply show the invention in a different way than Figs. 1 and 2.

Referring to Figs. 5 and 6, there is illustrated one way in which a client or user using a

user device 4 can open communications with a contact device 5. In step 100, the user requests communication with the desired contact by downloading from a directory, the request for communication. The user directory is checked in step 101 and in step 102, the user ID is retrieved. In step 103, the roles and privileges controller is checked and in step 104 a message is sent to the user, denying the contact in step 105, in that the user is not permitted by the controller to make the necessary contact and this will be described in more detail later. Presuming that the contact is allowed, then in step 105, the contact ID is retrieved and presuming there is no contact ID, then in step 106, the contact ID is requested or obtained in some way, usually by requesting the user. In step 107, the user returns the contact ID to the contacts directory where the contact ID is then entered into the directory and the contacts ID is then sent to the communications device in step 108, where it is requested whether there is a communications device with the contact ID that the user can contact. In step 109, communications is established. In step 110, communications takes place and in step 111, communication ends. In step 112, the data on the call is recorded and is entered into the roles an privileges controller. In step 113, the session ends. This gives a very simplified view of how a communications takes place. What must be appreciated is that once the user requests a communications and the communication is permitted, all the other tasks are performed automatically for the user.

Essentially, the kernel of this invention is about who you communicate with, not how you do it. Essentially, the first point of contact or access for the user is the overall contacts directory service which is both the user directory and the contacts directory, as defined above. This provides a database for the storage and management of both business and personal contact information and is effectively the core of the invention in the sense that the information about a contact is integrated with the various applications and services in communications systems which can be, as explained, a simple system just as a normal voice communications, but could be something such as a messaging service or the like. Thus, if a particular user wishes to contact another user or indeed a contact separate from the system, the contacts directory is the tool whereby the user operates the system. In simple terms, the user effectively says, for example, "I wish to have a video conference with contact X". That is all the user requires. He drags down in some way the name, which could be simply by

typing in the name so that the contacts directory downloads to the user sufficient information to allow the user identify the particular person he wants to contact, and then he or she indicated usually, for example, on a computer by means of a drag and click metaphor, the person they wish to contact and the manner in which they wish to contact them, e.g. Joe Brown by email, voice, video, and so on. That is then fed by the user back into the controller and the controller takes over then and provides the communication subject to the roles and privileges that will be discussed below. The user does not know what technical tasks have been carried out in making the contact, for example, whether there is technological difficulties because the particular contact or user that the first user wishes to have a video conferences with, happens to operate a different system. It could be a different video system or a different messages system or whatever. The controller according to the present invention assumes that function, carries out all the work and there is effectively seamless communications between the two people. The user does not need to know how to operate any of the devices or how to make the contacts, it is all done for him or her.

Effectively, the user interacts with their own contacts list as the first action in initiating their communication, probably in much the same way as using a mobile phone. It is envisaged that the contacts list can be managed, grouped, sorted and filtered to suit the users needs. For example, it may be advisable to sort the contacts such that the favourite contacts appear first. It is envisaged that any contact may be easily added. Essentially, therefore, the present invention is effectively a paradigm shift away from normal communications. Before, when dealing with a communication, the user has to choose the device to use, then operate the device according to the rules for that device and the communications system required such as selecting the contact, initiating the communication, and so on. In other words, effectively, what the user had to do was to have the "how" as it were of the communications, rather than the "who". Essentially, what the present invention does is that it is a combination of a directory service, business logic layer which effectively shifts this into reverse, allowing the user to choose who, and then the system takes care of the "how" and all the ancillary processes that can be additionally associated with the communication, rather than the user having to control all of this.

Further, the present invention overcomes one of the major problems for most

corporations and organisations, in allowing the actual communications and the contacts, namely, when some user can contact another user by implementing roles, rules and privileges. It is easiest to define this in relation to an organisation, but it will be appreciated that it can equally well be carried out for one individual. One individual might require that only various members of his or her family could use, for example, particular services for a limited period in every month. Thus, there would be certain restrictions placed on the use by that family member. However, this will become more apparent as the invention is described in more detail.

Essentially, the rules and privileges logic controller according to the present invention controls access to desired communications systems for specific users. These can either be the one user or sets of users. For example, it could simply be a means for defining a privilege as an access rule to a specified services provided on a specified communications system. For example, and this is purely an example, it might be decided that certain people can only have access to video conferencing. Thus, for example, in relation to one particular communications system, the privilege could be:-

-	Platinum Status	-	unlimited access
-	Gold Status	-	access between 7am and 7pm
-	Silver Status	-	access between 10am and 2pm
-	Bronze Status	-	access between 7am and 8am; 1pm - 2pm; and 5 pm to 6 pm
-	No Status	-	no access

The number and types of privilege would generally be kept to a minimum for simplicity. This type of system can then be provided for all users. Effectively, any category is a container for the particular communications system which, as mentioned already, may involve connection to a particular service such as email or probably more importantly, for example, a paid service that the company would not be particularly anxious to find all their employees consulting. Thus, for example, you might be willing to allow certain personnel download information from Reuters but you would want to severely limit the amount of downloading that can take place. For example, presuming that the particular category or container had more than one application, then the specific privileges could be allocated to each individual

application per user. This, for example, would accommodate individuals within a department being allowed only one application out of two, for example. Alternatively, the container of communications systems might be of similar communications systems, e.g. stock exchanges and you might permit an aggregate use not exceeding 10 hours per month to a user.

Essentially, privileges, in this invention, control the actions that a user can perform. There can be two types of privileges, namely, an administrative one, where you can control the actual users and then a usage one which can be based on either features or applications. It can be by way of controlling time or a budget restriction on a user per application or features. For example, starting off with a particular application, each application and feature which can be used, can have a set of privileges. They can be by way of the use, time limits on application usage or budget limits on application usage. It could by way of the budget limit for the application for usage of an application by an individual usage. As mentioned above, it could be by way of usage timers, in other words, that users can only use the particular application at various times. It could be, for example, incoming only or it could be specialist limitations such as, for example, on IP-PST, it could be by limited dialling codes, it could also be that in certain limited cases, there might be bandwidth limitations for a particular department or a particular organisation.

Further, there could be a limitation as to where such privileges can be implemented. For example, one might have no problem whatsoever with a particular user using a particular application when within the company network, but management might be relatively unhappy with somebody accessing private information from outside the organisation or from an insecure device. However, it will be appreciated that once these privileges have been allocated to various users, the company or organisation is not in control of the manner in which the users operate the various communications systems and services available to them. Further, it is possible with the present invention, to get an accurate summary, over any particular period of time, of the usage of the various communications devices by the various employees of an organisation.

Essentially, it is a unified communications device providing one point of access for

any communications device to any communications channel, while with the rules and privileges controlling the actual contacts that may be made. Also, not alone is it managing users but it will allow users to manage their contacts.

Another advantage of the present invention is that additional services can be added with no increase in complexity for the users.

The present invention provides a unified messaging system forming one of the communications systems. There is provided the one inbox offering a simple one point access store-forward-messaging solution. Users can use their desired email program, for example, Outlook, or even a web browser to access their full range of store-forward messaging communications. These include email (from multiple accounts or from one account), voicemail, fax which can be received, and generally SMS messaging from mobile phones or other phones. It is envisaged that the sending of faxes can be implemented through any computer, the inbox can be accessed from any touch phone, including mobile phones.

A further feature of the present invention is that there is provided means to provide a private closed group for instant messaging which will allow personnel to hold meetings or even to ask brief questions without having to do anything more than contact the actual group and allow somebody in the group to answer the question. The advantage of this is that it will allow multiple participants to gauge in real time discussions saving the normal unmanaged mass emailing that normally hampers simple real time discussion via email. Thus, people will know to contact these targeted messaging groups, rather than consult all the emails they receive. It will be possible for companies therefore to limit email to quite definite groups and that all the rest of the email received would be effectively junk or irrelevant email. It does not, by any means, stop one to one communication, however, it is a method of ensuring that the real time discussion and more structured messaging can be obtained from email.

It is envisaged that with the instant messenger, it will be possible to synchronise with many popular instant messaging products including an MSN Messenger, AOL Instant Messenger, Yahoo Chat, IRC and ICQ. This will allow people to communicate with contacts that may use any number of these instant messenger products, the great

advantage being that the person will not need to know what is the system the other person is using. There will be effectively seamless communication.

It is also envisaged that there will be provided an internet phone (IP) which provides a reduced cost telephone link from desktop to any PSTN phone number in the world for a fraction of the normal carrier cost. Thus, there will be the low cost of internet phone. Similarly, voice over internet phone and traditional PSTN telephone technology may be used, thus the low cost of internet phone with the ubiquity of the traditional PSTN telephone system may be combined. For example, it is envisaged that a user will not even have to dial the phone number of a contact but will simply click on the directory to phone and then the contact will be made directly.

The invention further provides conferencing service. Effectively, the conference service provides a virtual room. The meeting server will aggregate the internet phone stream to and from the participant computers. This saves bandwidth by only having one incoming and one outgoing data stream, irrespective of the number of participants. The only special hardware required is a sound card (shipped as standard on most PC's today) and for video, an inexpensive web-cam. Thus, for little additional cost, the present invention conferencing facility provides a video/voice conferencing environment. It is envisaged that the system can use multimedia conferencing and data sharing, allowing future versions to allow contacts who are not operating the present invention, participate in conferences initiated by those users connected to the communications service. Initially, it is envisaged that any standards compliant technologies suites may be easily integrated with the present conferencing system.

Further, the invention provides a collaboration device which allows the sharing of applications for collaborative working. In other words, the server retains the program, and multiple people can then edit the same document in real time. It is not necessary to have the application or document downloaded onto a particular user's machine nor indeed will the users need to be operating the same operating system. It is envisaged that the collaboration environment will allow annotation of the current file being worked on with each participant allocated some means by which others can see how that particular person has collaborated in the work. In one logical way, you

could simply highlight, by means of different colours, the input of different workers.

As explained already, the present invention allows the use of various business efficiency tools which make the work interaction process easier.

It will be appreciated that the present invention allows control over users and groups of users through role and privilege management. This gives any organisation greater flexibility and simplicity in controlling the user communications environment. This administration facility allows the manager of a company to limit and control what applications and communications methods a user may access. It will also allow management to monitor users interactions with the system via the reporting option.

It will be appreciated that various aspects of the invention may be embodied on a computer that is running a program or program segments originating from a computer readable or usable medium, such medium including but not limited to magnetic storage media (e.g. ROMs, floppy disks, hard disks, etc.), optically readable media (e.g. CD-ROMs, DVDs, etc.) and carrier waves (e.g., transmissions over the internet). A functional program, code and code segments, used to implement the present invention can be derived by a skilled computer programmer from the description of the invention contained herein.

It will be appreciated therefore that a computerised program may be provided providing program instructions which, when loading into a computer, will constitute the means for organising and rearranging the traffic flow in accordance with the invention and that this computer program may be embodied on a record medium, a computer memory, a read only memory or carried on an electrical carrier signal.

In the specification the terms "comprise, comprises, comprised and comprising" or any variation thereof and the terms "include, includes, included and including" or any variation thereof are considered to be totally interchangeable and they should all be afforded the widest possible interpretation.

The invention is not limited to the embodiments hereinbefore described but may be

varied in both construction and detail.

CLAIMS

1. A communications services controller for a communications network comprising a plurality of communications systems connected to a network resource; a plurality of user devices connected to the services controller, the user devices having a capability to use at least one of the communications systems; a plurality of contact devices connected to the network resource and having a capability to use at least one of the communications systems, some of the contact devices being additionally user devices, the services controller comprising:-

(a) a user directory comprising:-

a user identifier;

data on all communications systems available to the user including a unique identifier for each communications system, and access data to allow the user device access the available communications systems;

(b) a roles and privileges logic controller comprising means for controlling access to a desired communications system on a user requesting to use the communications system, the roles and privileges logic controller having means for storing access rules based on the roles and privileges allocated to the user, and means to provide access based on the said access rules;

(c) a contacts directory comprising a contacts identifier, data on each communications system available to the contact device, including a unique identifier for each communications system available to the contact device for use in the managed network resource;

(d) an intercommunications server having means for contacting and opening communications using a communications system between a

user device and a contacts device on receiving an access permitted signal, said communications server having means to obtain the necessary access data for the user device from the user directory and for the contact device from the contacts directory.

2. A controller as claimed in claim 1, in which the intercommunications server comprises means for allowing a user device access more than one communications system simultaneously for contact with the one contact device.

3. A controller as claimed in claim 2, in which the intercommunications server comprises means for allowing a user device access more than one communications system simultaneously for contact with another contact device while communicating with a different contact device.

4. A controller as claimed in any preceding claim, in which the roles and privileges logic controller comprises means for storing a record of the access to a communications system obtained by a user during a preset period.

5. A controller as claimed in any preceding claim, in which the roles and privileges logic controller comprises:-

means for defining a privilege as an access rule to a specified communications system;

means for defining a plurality of privileges; and

means to allocate at least one privilege to each user.

6. A controller as claimed in any preceding claim, in which the roles and privileges logic controller comprises:-

means for defining a privilege as an access rule to a specified service provided on a specified communications systems;

means for defining a plurality of privileges; and

means to allocate at least one privilege to each user.

7. A controller as claimed in claim 5 or 6, in which the privilege is one or more of:-

total duration of use within a specified time period,

usage between specified times during any day,

monetary limits over a specified time limit,

incoming use only,

user device limitation,

number of users already provided with the privilege communications system traffic handling capabilities,

priority of access with respect to other users,

nature of contact which it is desired to communicate with.

8. A controller as claimed in any preceding claim, comprising:-

a conferencing server means to allow a user device contact the server, and

means in the server to aggregate the data to and from each user device to provide a single incoming and outgoing data stream independent of the number of users.

9. A controller as claimed in any preceding claim, comprising a closed messaging device for the reception and storage of messages for nominated user devices.

10. A controller as claimed in claim 9, in which the closed messaging device includes means to receive and store messages from disparate messaging services.

11. A controller as claimed in any preceding claim, comprising a unified messaging server having means for storing store-forward-messaging services.

12. A controller as claimed in claim 11, in which the store-forward-messaging services comprises one or more of:- email; voicemail; fax received and SMS messages.

13. A controller as claimed in any preceding claim, comprising:-

means to allow users access to view a document;

means to allow the user edit the document;

means to store the changes in the document due to editing by a user, said changes being identified by user .

14. A controller as claimed in any preceding claim in which the network resource is the internet.

15. A controller as claimed in any preceding claim in which the network resource is the extranet.

16. A controller as claimed in any preceding claim in which the network resource is the intranet.

17. A controller as claimed in any preceding claim, in which the roles and privileges logic controller includes means to provide an access permitted signal and an access denied signal.

18. A method in a communications network of controlling and facilitating the use by users of user devices for at least one communications system connected to a network resource, and contact devices for at least one communications system connected to the network resource comprising the initial steps of:-

allocating to and storing a user identifier for each user;

collecting and storing data on each communications system available to the user;

collecting and storing access data to allow a user device, operated by the user, access each available communications system;

allocating to and storing by means of privileges rules to the user, the terms and conditions under which access to each communications system is permitted;

allocating to and storing a contact identifier to a contact;

collecting and storing contact access data to allow a user device access the contact on a contact device and on a user requesting access to a contact, the steps are performed of:-

consulting the privileges rules and on the access to the communications system being permitted, retrieving the contact access data and using the access data to connect the user device to the contact device.

19. A method as claimed in claim 18, in which, on the user requesting to be connected to a contact device, the access data to allow the user device to

communicate with the contact is not available, the user first collects the necessary access data for storage.

20. A method as claimed in claims 18 or 19, in which the user device is connected to the contact device by more than one communications system.

21. A method as claimed in any of claims 18 to 20, in which the user device is connected to two different contact devices.

22. A method as claimed in any of claims 18 to 21, in which there is stored a record of the access to a communications system obtained by a user during a preset period.

23. A method as claimed in any of claims 18 to 22, in which the privilege is one or more of:-

total duration of use within a specified time period,

usage between specified times during any day,

monetary limits over a specified time limit,

incoming use only,

user device limitation,

number of users already provided with the privilege communications system traffic handling capabilities,

priority of access with respect to other users,

nature of contact which it is desired to communicate with.

24. A method in a communications network in which the initial steps have been

performed of:-

allocating to and storing a user identifier for each user;

collecting and storing data on each communications system available to the user;

collecting and storing access data to allow a user device, operated by the user, access each available communications system;

allocating to and storing by means of privileges rules to the user, the terms and conditions under which access to each communications system is permitted;

allocating to and storing a contact identifier to a contact;

collecting and storing contact access data to allow a user device access the contact on a contact device and on a user requesting access to a contact, the method comprising:-

consulting the privileges rules and on the access to the communications system being permitted, retrieving the contact access data and using the access data to connect the user device to the contact device.

25. A computer program comprising program instructions for causing a computer to perform the method of any of claims 18 to 24.

26. A computer program according to claim 25, embodied on a record medium.

27. A computer program according to claim 25, stored in a computer memory.

28. A computer program as claimed in claim 25, embodied in a read only memory.

29. A computer program as claimed in claim 25, carried on an electrical signal carrier.

Prelim7\ps0088

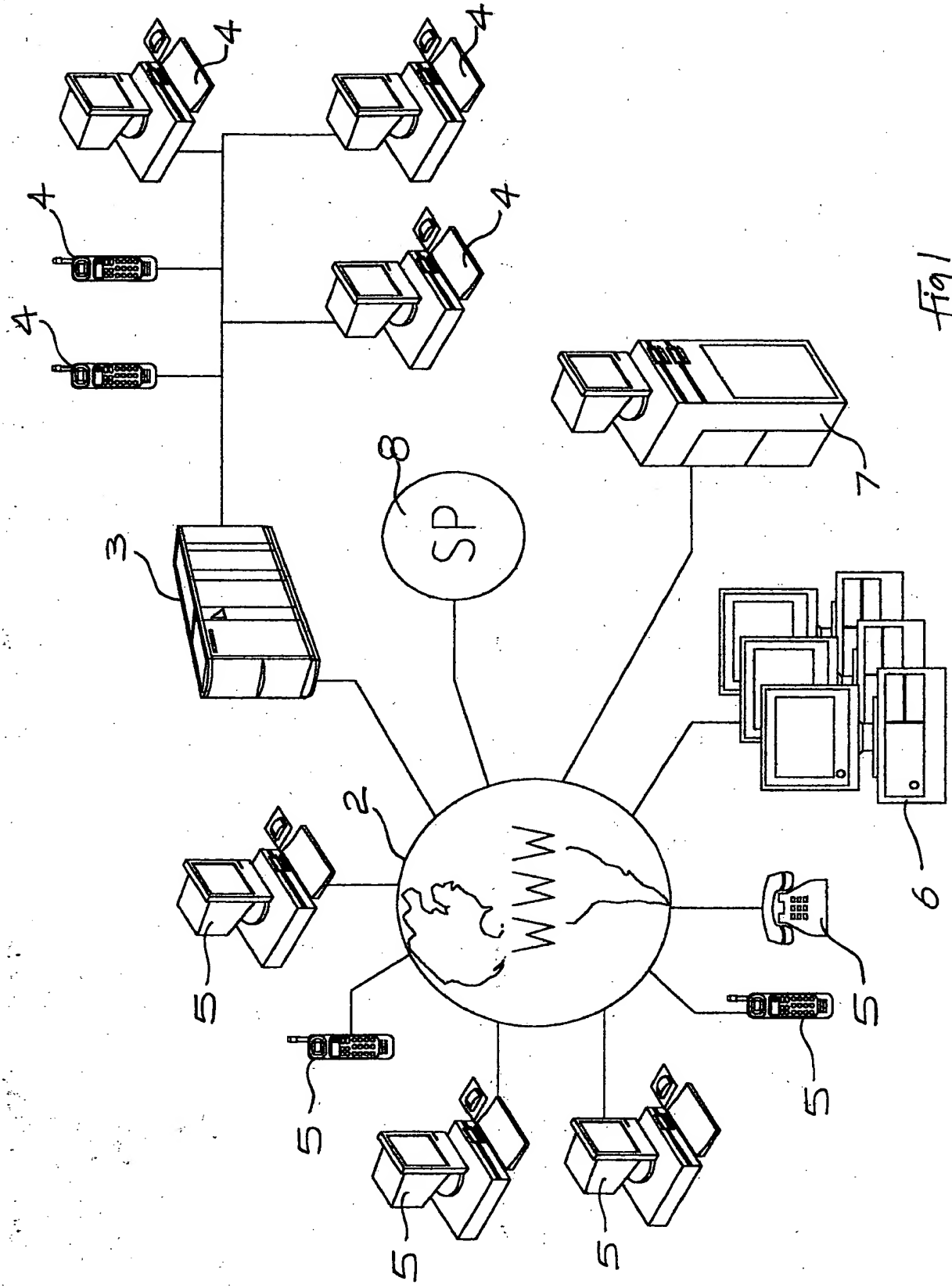

Fig 1

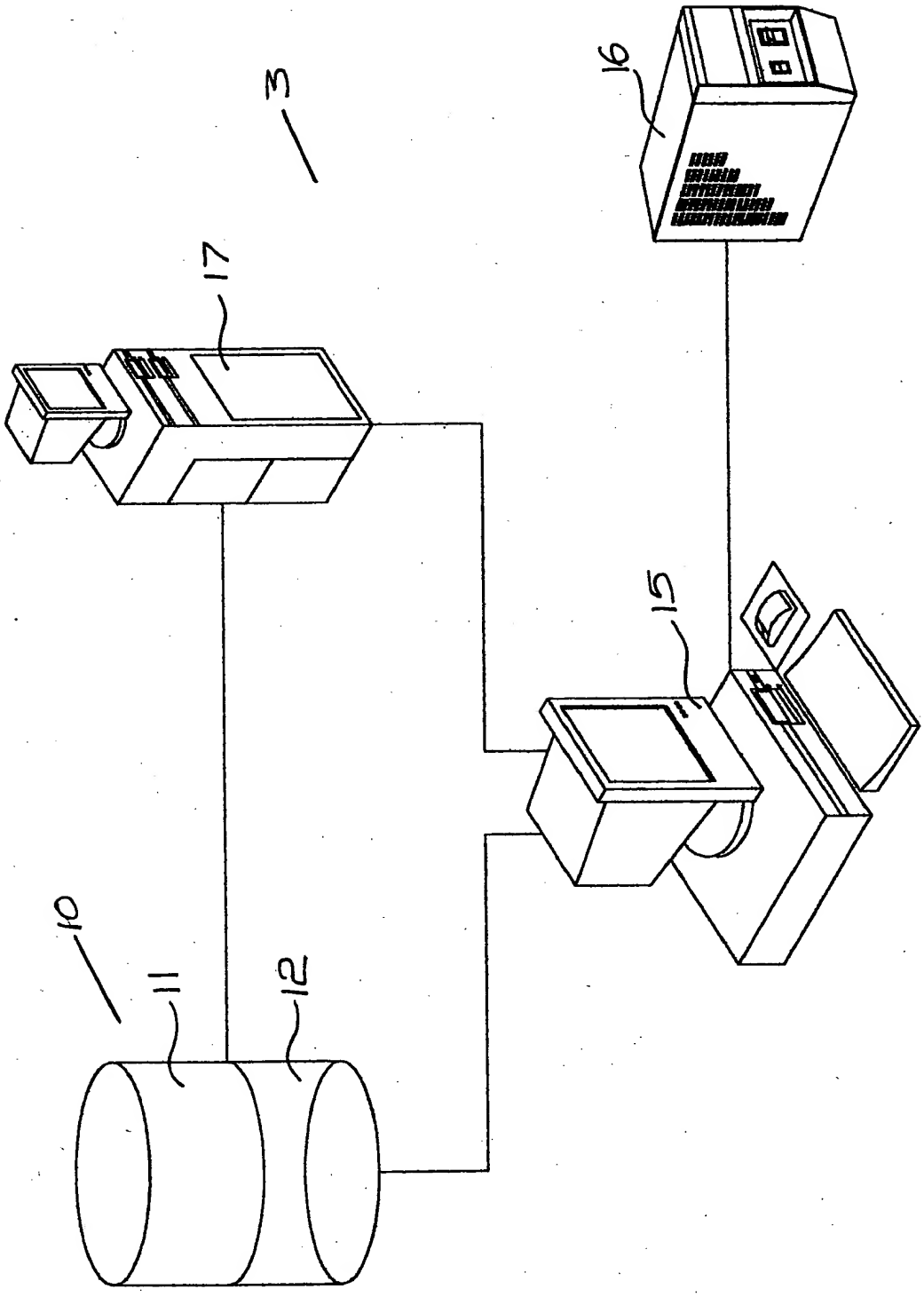

Fig2

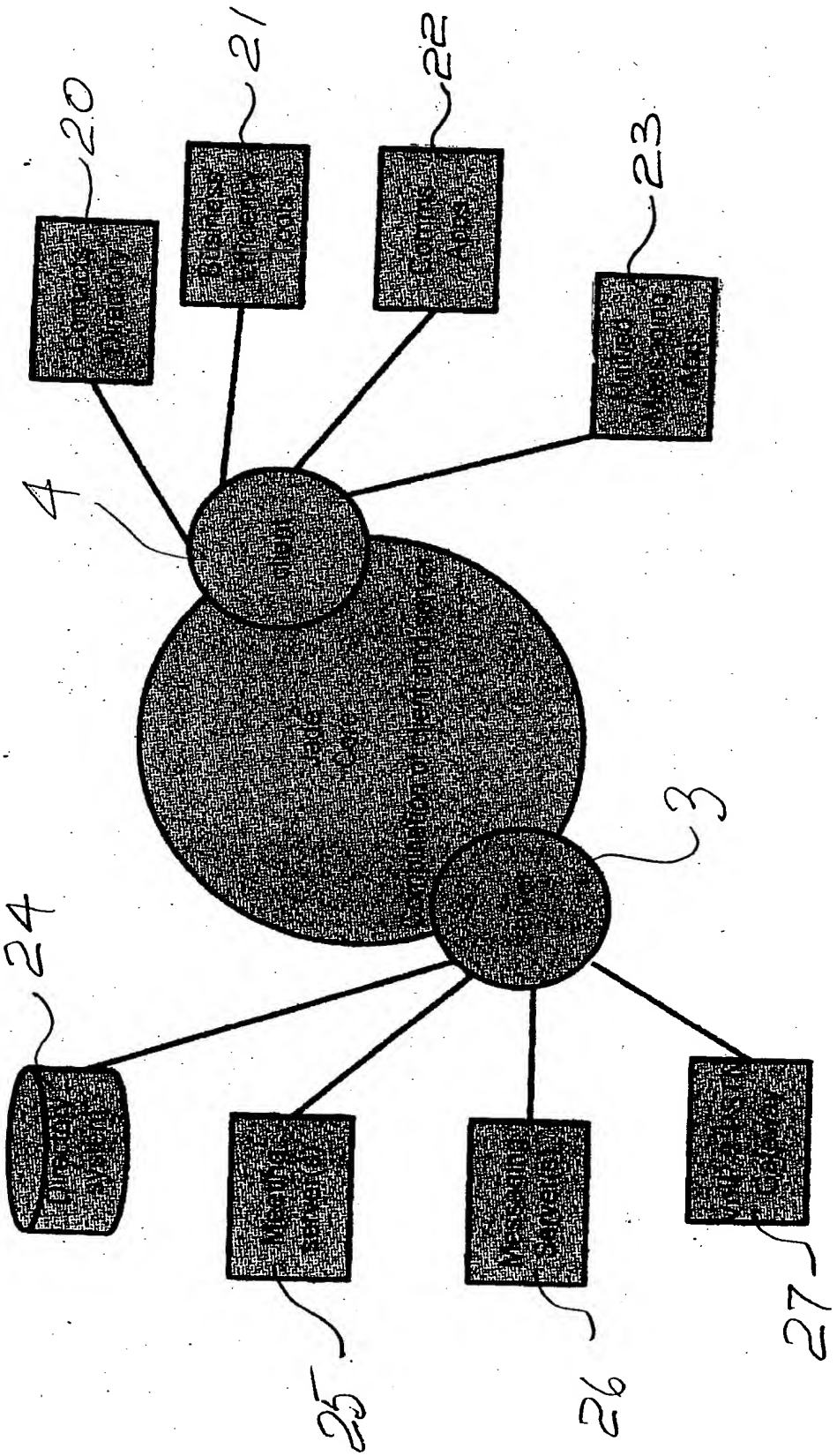

fig 3

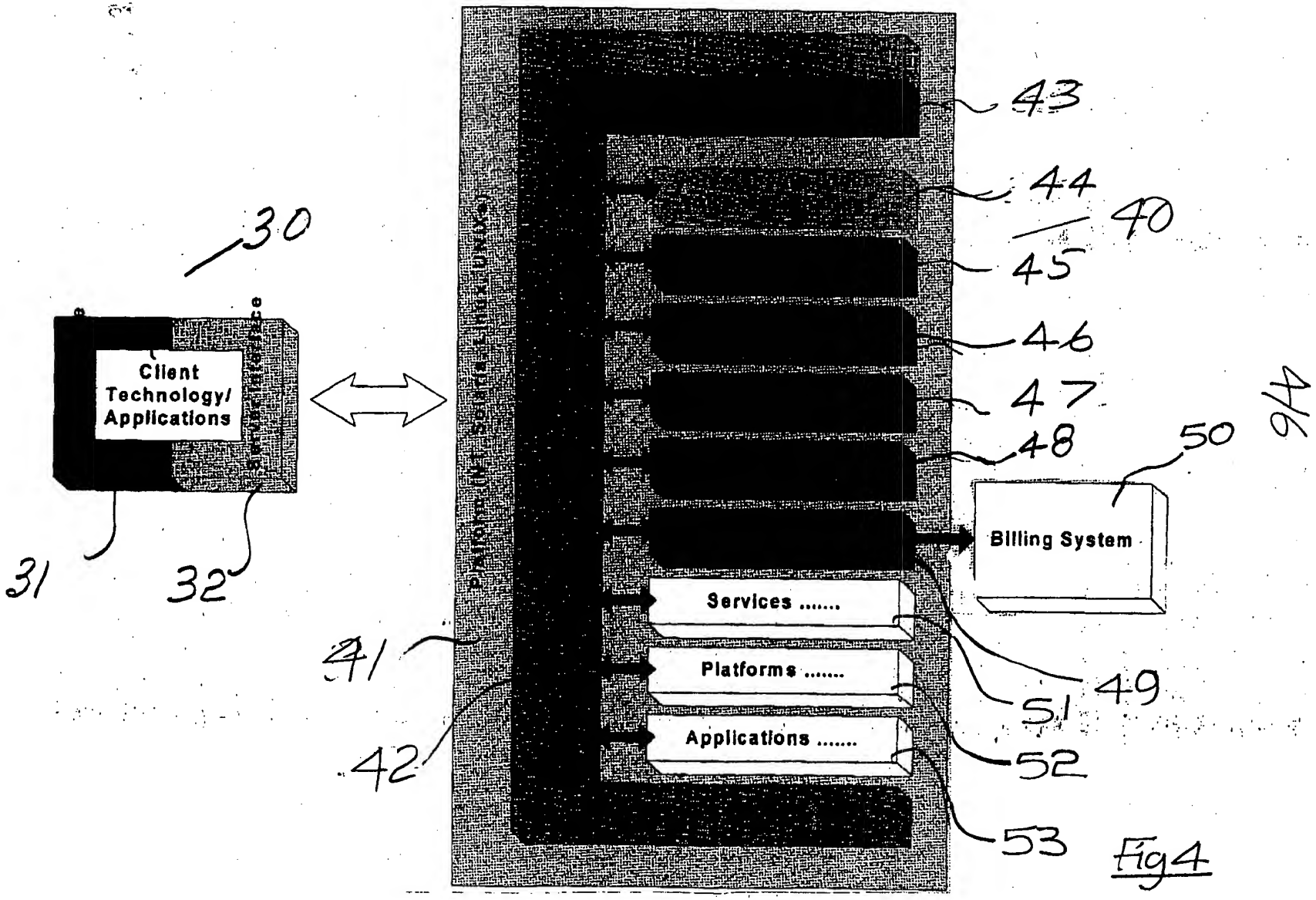
30
Client Technology/ Applications
31
32
Platform Interface
43
44
40
45
46
47
48
50
Billing System
Services .....
Platforms .....
Applications .....
41
42
49
51
52
53

Fig4

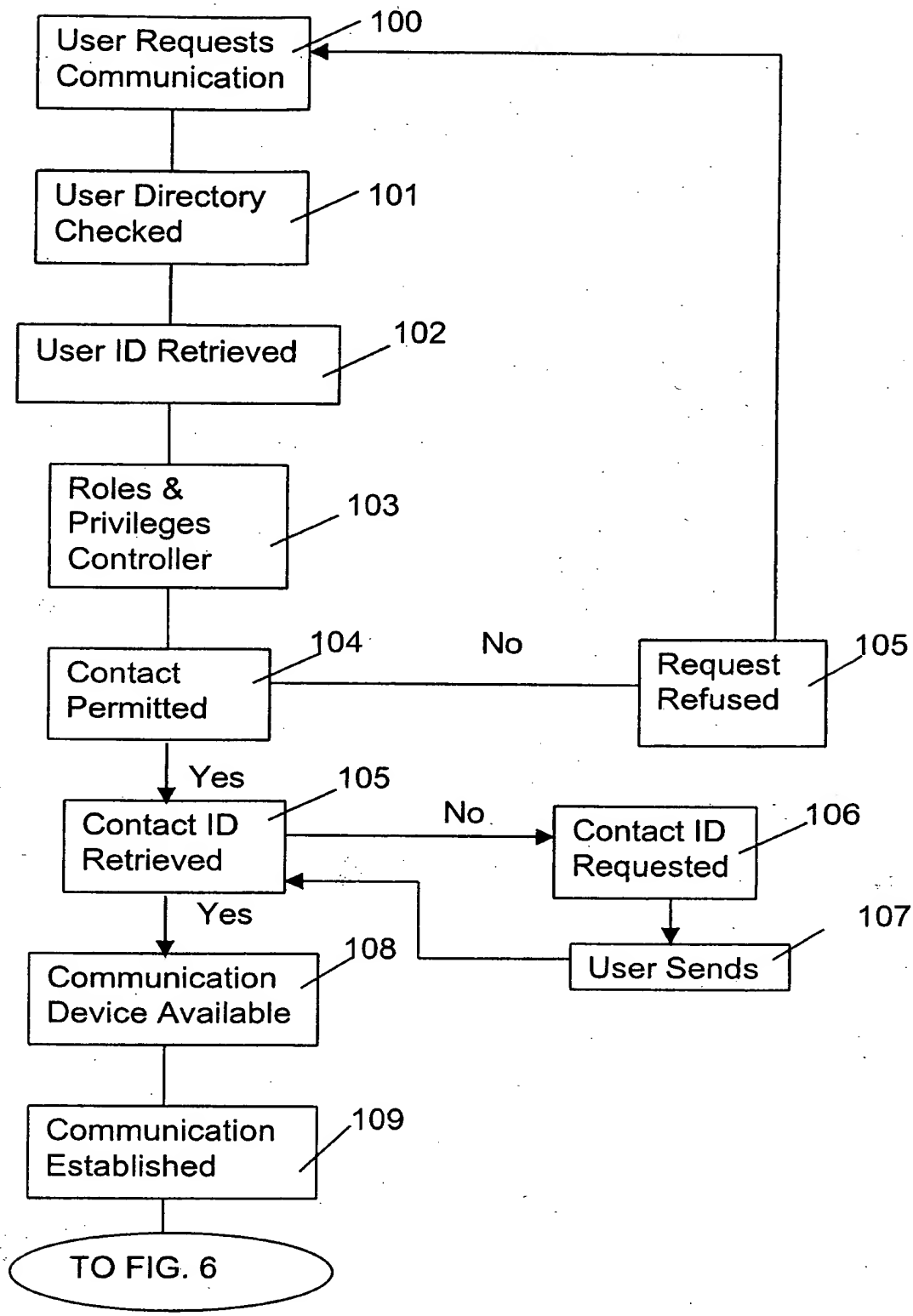
User Requests Communication
100
User Directory Checked
101
User ID Retrieved
102
Roles & Privileges Controller
103
Contact Permitted
104
No
Request Refused
105
Yes
Contact ID Retrieved
105
No
Contact ID Requested
106
Yes
User Sends
107
Communication Device Available
108
Communication Established
109
TO FIG. 6

FIG. 5

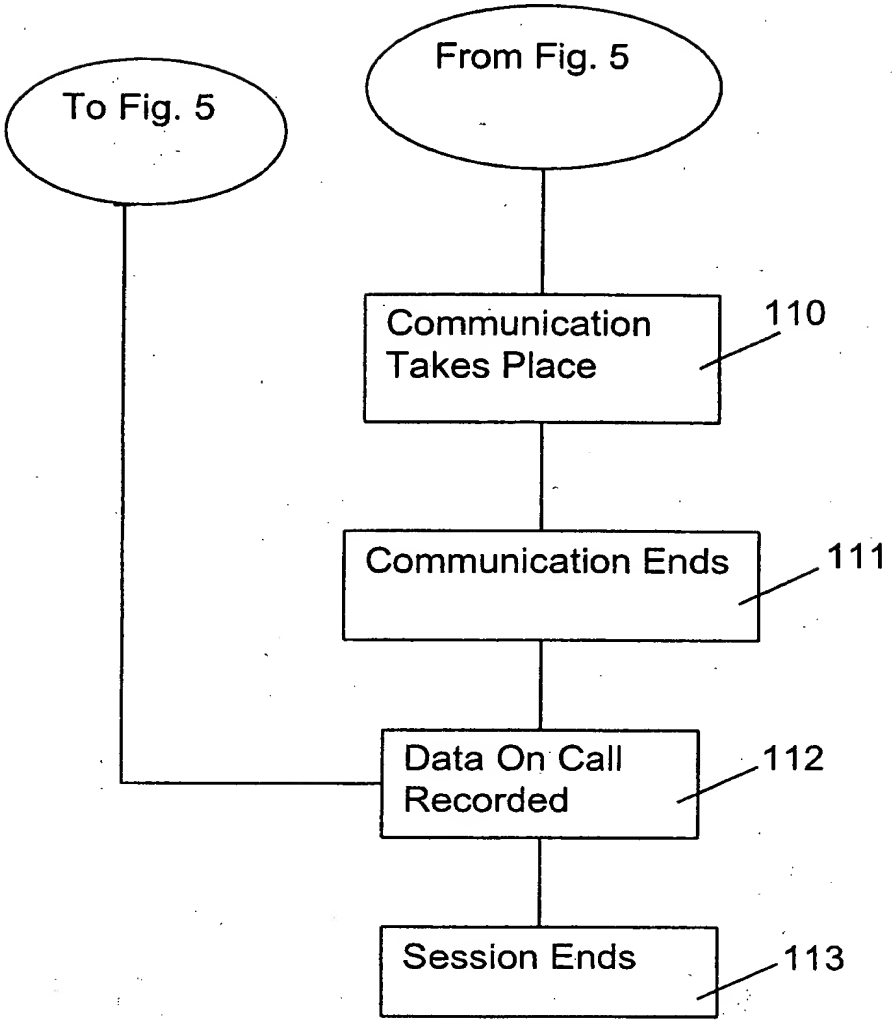
From Fig. 5
To Fig. 5
Communication Takes Place
110
Communication Ends
111
Data On Call Recorded
112
Session Ends
113

FIG. 6